



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/554,736	07/10/2000	Michihiro Shibano	OHSH-285	2992

7590 09/16/2003

SHERMAN & SHALLOWAY  
413 N WASHINGTON STREET  
ALEXANDRIA, VA 22314

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/554,736	SHIBANO ET AL. <i>9</i>
Examiner	Art Unit	
Umakant K. Rajguru	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u>	6) <input type="checkbox"/> Other: _____

1. Claims under examination are 1-7.
2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 contains some subject matter in parentheses. It is not clear if that matter is or is not encompassed by the scope of the claim.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 1711

5. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shizuki et al (US 4,600,743) in view of Arai et al (US 6,528,567).

Shizuki discloses an antistatic fiber obtained from a thermoplastic polymer containing polyoxyalkylene glycol or its derivatives in an amount of not less than 0.5% by wt. (abstract). Suitable glycols are listed in column 5, line 33 to column 6, line 24, one of them being copolymer of polytetramethylene glycol (column 5, lines 40-41). Some optional components that can be added are sulfonates (column 4, line 55 to column 5, line 12).

Shizuki fails to disclose the claimed (sulfonate) salt

Arai uses potassium dodecyl benzenesulfonate as antistatic agent (column 10, lines 32-33) .

Therefore it would have been obvious to follow teachings of Shizuki and Arai and arrive at invention of above claims. It is noted that Shizuki does not mention anything about amount of inorganic salts in sulfonates. Nonetheless, it is known in the art that the amount of inorganic salts in an antistatic material should be low since larger amounts adversely affect antistatic characteristic due to their non-conductive behavior.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shizuki et al (vs. 4,600,743) in view Arai et al (US 6,528,567) as applied to claim 1 above, and further in view of Dunay (US 3,775,213).

Shizuki (together with Arai) does not mention spinning solvent (of instant claim 4).

Art Unit: 1711

Dunay discloses production of insulative material from poly benzimidazole fiber using N, N-dimethyl formamide or N, N-dimethylacetamide as preferred solvents (column 4, lines 16-17).

It would have been obvious to use solvents of Dunay in the preparation of fiber of Shizuki as the preferred solvents.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shizuki et al (US 4,600,743) in view of Arai et al (US 6,528,567) as applied to claim 1 above, and further in view of Murata (US 5,954,062).

Shizuki (together with Arai) does not mention the lubricant (of instant claim 5).

Murata discloses artificial hair and its preparation wherein an amino-modified silicone lubricant is used (column 6, lines 6-8).

Therefore, it would have been obvious to use the lubricant of Murata for the fiber of Shizuki in order to prevent fusion and intermixing of fibers

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Umezawa et al (US 5,800,920) in view of Shizuki et al (US 4,600,743) and Arai et al (US 6,528,567).

Umezawa discloses polyurethane fiber which contains many useful additives, one of them being antistatic agent/s (column 7, line 64).

Patentee is silent about any specific antistatic agent/s.

· Art Unit: 1711

Disclosures of Shizuki and Arai are presented earlier.

It would have been obvious to use the antistatic agents taught by Shizuki and Arai in the fiber of Umezawa in order to impart very enhanced level of antistatic property as well durability.

9. Any inquiry concerning this communication from the examiner should be directed to U.K. Rajguru whose telephone number is 703-308-3224. The examiner can generally be reached on Monday-Friday 9:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-0661.



James J. Seidleck  
Supervisory Patent Examiner  
Technology Center 1700

  
U.K. Rajguru/dh  
September 15, 2003